

Introduction

Welcome to the Plan Review Squad of the Design Review Group of the Congestion Management Section of the Traffic Engineering and Safety Systems Branch. This introduction will provide an overview of the Congestion Management Section, the Design Review Group and the Plan Review Squad.

Congestion Management Section

The mission of the Congestion Management Section is the exploration of ways to apply proven, cost-effective traffic engineering based operational and safety improvement strategies which mitigate the impacts of traffic congestion, improve overall system efficiency and enhance motorists safety on a statewide basis.

The Congestion Management Section is comprised of three distinct groups to address improved overall efficiency on our transportation systems: The Traffic Operations Group, The Design Review Group, and the Municipal Assistance Group. The Congestion Management Section was established in early 1992 in response to the ISTEA (Intermodal Surface Transportation Efficiency Act), a bill developed by the Federal Government to provide funds to states to improve their existing transportation systems without necessarily widening or building new roadways. The Traffic Operations Group was a direct result of the ISTEA legislation. The Design Review Group and Municipal Assistance Group existed in other areas of the Traffic Engineering and Safety Systems Branch (TESSB) prior to the formation of this section. When the Congestion Management Section was formed, those existing groups' responsibilities were shifted and expanded to focus on the Department's efforts to improve the efficiency of our existing transportation systems.

Design Review Group

The Design Review Group is responsible for the review of transportation facilities to ensure that the traffic operations and safety are maintained. The Design Review Group has the responsibility for several major functions within the TESSB: special commercial reviews, crossover reviews, feasibility study reviews, planning documents reviews, capacity analysis reviews, roadway plans reviews, etc. Using various congestion management concepts and initiatives, the Design Review Group develops recommendations to alleviate traffic operational and safety concerns identified during these reviews. The Design Review Group is divided into two squads: Access Review and Plan Review.

Plan Review Squad

The essential functions of the Plan Review Squad are presented in detail in this document. The following **Table of Contents** outlines the major responsibilities of the Squad. Detailed introductions and step-by-step procedures are also presented in this report. It should be noted that this document presents information in a "project life" chronological order.

Table of Contents

TIP Stages

Feasibility Study:

 Feasibility Study Preparation

 Feasibility Study Review

Scoping Cost Estimate

Environmental Document:

 EA Preparation or CE Preparation

 EA Review or CE Review

Public Hearing:

 Hearing Map Review

 Post Hearing Map Review

Drainage Recommendation Review

Preliminary Field Inspection, Final Field Inspection, Combined Field Inspection

Other Processes

TIP Review

Capacity Analysis Review

Plan Review

Special Requests

Appendix

- A. Traffic Breakout
- B. Synchro Check List
- C. SIDRA Check List
- D. HCS Check Lists
- E. Intersection Analysis Guidelines
- F. Mainframe
- G. cc list

List of Examples

Name	Description	Location
Example 1	Feasibility Study Input Meeting Letter	Feasibility Study Preparation
Example 2	Form Letter - FS Preparation	Feasibility Study Preparation
Example 3	Feasibility Study (w/cover letter)	Feasibility Study Review
Example 4	Form Letter - FS Review	Feasibility Study Review
Example 5/5A	Scoping Meeting Notification	Scoping Cost Estimate
Example 6	Form Letter - Scoping Cost Estimate	Scoping Cost Estimate
Example 7	Division Force Account Estimate	Scoping Cost Estimate
Example 8/8A	Scoping Cost Estimate Response Letter	Scoping Cost Estimate
Example 9	Standard Sentences	Scoping Cost Estimate
Example 10	Start of Study Letter	EA/CE Prep
Example 11	Form Letter - EA Prep	EA/CE Prep
Example 12	EA Preparation Response Letter	EA/CE Prep
Example 13	Draft EA Review Letter	EA/CE Review
Example 14	Form Letter - Draft EA Review	EA/CE Review
Example 15	Draft EA Review Response Letter	EA/CE Review
Example 16	Drainage Recommendation Letter	Drainage Rec Review
Example 17	CADD Naming Convention	Drainage Rec Review
Example 18	Drainage Rec Review Response Letter	Drainage Rec Review
Example 19	Request for Capacity Analysis Review	Capacity Analysis Review
Example 20	Capacity Analysis Review Response Letter	Capacity Analysis Review
Example 21	City of Raleigh Bond Project Schedule	Plan Review

Capacity Analysis Requirements for TIP Projects

These analyses may be performed by the Traffic Engineering Branch, Roadway Design Unit, PD&EA, or a private engineering firm and should provide a consistent methodology for all reviews. The following list indicates what type of analyses should be performed for the different types of facilities.

Freeways and Full Control of Access Expressways

- 1.) Freeway Section Capacity Analysis
- 2.) Ramp Capacity Analysis
- 3.) Weave Analysis
- 4.) Y-line Intersection Capacity Analysis (Unsignalized and Signalized)
- 5.) Y-line Section Capacity Analysis (Two-lane, Multilane, etc.)
- 6.) Queue Analyses for Intersections

Partial Control of Access Expressways

- 1.) Multilane Section Capacity Analysis
- 2.) Ramp Capacity Analysis
- 3.) Intersection Capacity Analysis for L-Lines or Y-Lines where applicable
- 4.) Queue Analyses for Intersections

Arterials

- 1.) Intersection Capacity Analysis (Unsignalized and Signalized)
- 2.) Queue Analysis for Intersections

Rural Facility

- 1.) Two Lane Capacity Analysis where applicable
- 2.) Multilane Capacity Analysis where applicable
- 3.) Intersection Capacity Analysis (Unsignalized and Signalized)
- 4.) Queue Analysis for Intersections